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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,360	01/11/2002	Beng S. Ong	D/A1658	6789

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Xerox Square
100 Clinton Ave. S., 20th Floor
Rochester, NY 14644

EXAMINER

TRUONG, DUC

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
10/042,360	ONG ET AL.	
Examiner	Art Unit	
Duc Truong	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 6-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

The allowance of claims 3-4 and the objection to claims 5-26 are a mistake. A further search has been extended and a new ground of rejection is cited herein.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-4,6-19 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garnier et al in view of Reed et al (new cited).

Garnier discloses a polythiophene in formula III in that X and X' are S, R₁,R₂,R'₁ and R'₂ are hydrogen or alkyl, and are A or B of the instant claims, Y,Y₁,Y₂ and Y₃ are divalent linkage; Y₁ can be cyclic or heterocyclic arylene group and can be considered the claimed monomer D which can be present or absent since d is 0 or 1.

The disclosure of the reference differs from the instant claims in that it does not disclose the general formula of claim 1 nor specific formulas in claims 3-4, 25 and 26.

Reed discloses polythiophenes for electrical applications (see cols 29-32) and the claimed central thiophene monomers in the oligomer having an even number (formula 27) or odd number (formula 23) of the B side chain, wherein B is hydrogen.

It would have been obvious to one of ordinary skill in the art to provide central monomers in the oligothiophene having the hydrogen (B side chain) in the central

portion of the Garnier oligomer, in order to provide further control of the conductivity and properties the channel region of the field effect transistor.

Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garnier in view of Reed, as stated above, and further in view of Sato et al.

Garnier in view of Reed references, disclose the claimed polythiophenes.

The disclosures of the references differ from the instant claims in that they do not disclose the claimed Mn and the claimed Mw.

Sato discloses the polythiophene compound and the repeating units having the Mw is from about 60,000-100,000 (see Abstract and at col. 3, lines 11-12), overlapped with these in the claims. In view of the similarity, the claimed Mn would be considered inherent in the prior art.

It would have been obvious to one of ordinary skill in the art to select the Mn and Mw of polythiophenes, as disclosed in Sato to define these of Garnier in view of Reed, since they have been shown to be effective system and thus would have been expected to provide adequate results. There is no showing of unexpected results derived from said selections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 571-272-1081. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DT



DUCTRUONG
PRIMARY EXAMINER